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<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/822,425	FRICK, ROGER L.	
	Examiner	Art Unit	
	Samuel A. Turner	2877	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 20 June 2007.
2. ☒ The allowed claim(s) is/are 1, 3-6, 9-11, 13-18, 20-27, 30-34, 36-38.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
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## DETAILED ACTION

### *Drawings*

The drawings received on 20 June 2007 are accepted by the examiner.

### *Allowable Subject Matter*

Applicant's response filed 20 June 2007 has been fully considered and is persuasive.

Claims 1, 3-6, 9-11, 13-18, 20-27, 30-34, 36-38 are allowed in view of the prior art of record.

The following is an examiner's statement of reasons for allowance:

Applicant's amendment canceling claims 2 and 12 has overcome the objection under 37 CFR 1.75(c).

Applicant's amendment has overcome the rejection of claims 17, 20, and 30-34 under 35 U.S.C. § 112, second paragraph.

Applicant's amendment canceling claim 29 has overcome the rejection 35 U.S.C. § 112, second paragraph.

Applicant's amendment has overcome the rejection of claims 9, 11, 13, 15, 16, 18, 22, 24, 25, 27, and 36 under 35 U.S.C. § 102(e) as anticipated by Thomson et al(2005/0241403).

Applicant's amendment of claim 9 has overcome the rejection of claim 14 under 35 U.S.C. § 103(a) as unpatentable over Thomson et al(2005/0241403).

Applicant's amendment has overcome the rejection of claim 21 under 35 U.S.C. § 103(a) as unpatentable over Thomson et al(2005/0241403) in view of Billeter(3,909,713).

The Terminal Disclaimer filed 11 May 2007 has overcome the rejection of claims 1, 22, and 23 under the judicially created doctrine of obviousness-type double patenting contained in the action dated 16 February 2007.

With regard to claims 1 and 37, the prior art of record fails to teach that the resonator is internal to the source and forms a cavity of the source in combination with the remaining limitations of claims 1 or 37. Claims 3-6 are dependent from claim 1 and therefor also include the allowed subject matter.

With regard to claims 9, 21, 22, 24, 27, and 36; the prior art of record fails to teach that the resonator has an electrically conductive layer on at least one interior wall of the resonator dielectric body defining a variable cavity gap in combination with the remaining limitations of claims 9, 21, 22, 24, 27, or 36. Claims 10, 11, 13-16, 25, 26, and 30-34 are dependent from either claim 9, 24, or 27 and therefor also include the allowed subject matter.

With regard to claim 17, the prior art of record fails to teach the Q-factor relationship associated with the source and outside source resonators in combination with the remaining limitations of claim 17. Claims 18 and 20 are dependent from claim 17 and therefor also include the allowed subject matter.

With regard to claims 23 and 38, the prior art of record fails to teach that the sub-optical electromagnetic energy is a pulsed energy and the measured characteristic is the repetition rate in combination with the remaining limitations of claims 23 or 38.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

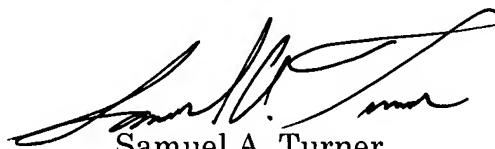
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel A. Turner whose phone number is 571-272-2432.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr., can be reached on 571-272-2800 ext. 77.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Samuel A. Turner  
Primary Examiner  
Art Unit 2877